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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Amber D. Huffman

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EXAMINER

EMDADI, KAMRAN

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/939,347	Applicant(s) HUFFMAN, AMBER D.	
	Examiner Kamran Emdadi	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

In response to the Applicant's arguments the Examiner has considered the amendments to the claims and the Applicant's arguments in its entirety. The conclusion is that claims 1-18 are still rejected. Claims 1-11 and 15-18 for similar purposes with the addition of a 112 2nd para. rejection to claim 15 invoked by the Applicant's amendment to that claim. Claims 12-14 have a new grounds of rejection as indicated below. In addition the drawings are objected to for failing to support the claimed features of claim 12.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the features recited in claim 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

None of the DSPs recited in claim 12 are suggested by the drawings. The specification provides a brief description of the use of DSPs for most of the processing needs, however, no drawings include a DSP or DPSs as claimed. The gist of claim 12 revolves around the use of multiple DSPs none of which are supported by the drawing.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

Art Unit: 2667

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 15, the phrase "transmit data symbols from the MAC" is indefinite. The Examiner suggests amending the claim to "transmit the data symbols from the MAC [processing element]". Claims 16-18 are also rejected by virtue of their dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-11 and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Diepstraten et al. (U.S. Patent Application Publication No. US 2003/0026198).

Regarding claims 1, 6 and 15, Diepstraten teaches a wireless LAN including a MAC device 301 having control means 302, processing means 303 and transmitting and receiving means 304 (see Abstract and figure 3). Diepstraten further teaches the MAC element 301 having a DSP processor 303 (i.e. a MAC processing element) that is in communication with another processor CPU 21, 121. The DSP processor 303 handles information processing including: data to transmit, data received, a clock signal and a control signal (see [0052]). The DSP 303 distinguishes between noise and QPSK signals (see [0063]). For data symbols being transmitted, the DSP 303 handles the necessary signal detection (see Abstract).

Regarding claims 2-3 and 16-17, Diepstraten teaches a threshold level used for detecting a transmitted signal (see [0043]).

Regarding claim 5, Diepstraten teaches a baseband processor 303 (see [0052]).

Regarding claim 7, Diepstraten teaches MAC controller 302 coupled to DSP 303, which monitors the signal after the data symbols have been transmitted (see Abstract).

Regarding claim 8, Diepstraten teaches the DSP 303 performs baseband, coding and modulation (see [0052]).

Regarding claim 9, Diepstraten teaches an analog-to-digital and digital-to-analog processing component to handle signals received via the analog antenna 31 and translated for MAC controller 302 (see figure 3).

Regarding claim 10, Diepstraten teaches a transceiver and antenna 31, 131 and 304 (see figure 3).

Regarding claim 11, Diepstraten teaches a bus between memory 305 and controller 302 for I/O signaling, and a CPU processor 21 (see figure 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diepstraten in view of Wang et al. (U.S. Patent No. 6,005,853).

Diepstraten discloses all of the above features of a wireless MAC device, however, is silent regarding setting a timer when the RSSI level falls below a threshold. Wang discloses a wireless network access scheme including MAC devices and setting

Art Unit: 2667

a timer when an RSSI value falls below a threshold, specifically, a fixed threshold (FT) is compared to a RSSI level and if the RSSI level falls below FT then the channel state machine enters a channel_clear state (see column 10, lines 23-35) otherwise referred to as a "clear" timer (see column 10, lines 43-46).

Motivation to combine these two references is evident in the Background portions of their respective specifications. For instance, Diepstraten discloses the need for an improvement in the high probability of failures for messages transmitted in a network and the burden of hosting retransmissions of data messages. The solution is to provide a detection scheme to identify the data transmissions before a collision occurs (see [0015-0016]). Similarly, Wang discloses wasted network resources used for locating mobile units in a wireless network. The solution in Wang is to provide improved synchronization to avoid burdensome retransmissions of data messages (see column 3, lines 5-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined these two references and arrive at the features recited in claims 4 and 18.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diepstraten in view of McLane et al. (U.S. Patent No. 5,309,484).

Regarding claim 12, Diepstraten teaches a DSP 303 used for MAC processing and baseband processing (see [0052]) and McLane teaches a data receiving system that utilizes DSPs to provide ADC and DAC processing (see column 1, lines 48-53 and

column 5, lines 60-65). The use of DSPs described in McLane illustrates the wide use of the chips as a processing means. Diepstraten does not disclose the use of a DSP for all the features outlined in claim 12, however, the combination of these references illustrates the obvious design choice to use the DSP wherever possible in an effort to avoid costly and oversized IC design.

Motivation to combine these references is evident from the goals described in the background portion of the McLane specification as outlined above. Further, Diepstraten is simply a later design that utilizes a DSP for the same purpose described in McLane, i.e. as an efficient processing means.

Regarding claims 13-14, Diepstraten teaches all of the features of claims 13-14 as described in the above noted rejections to claims 8 and 10.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is 571-272-6047. The examiner can normally be reached M-F between the hours of 7am-5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2667

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kamran Emdadi

July 27, 2005


CHI PHAM
PRELIMINARY PATENT EXAMINE
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